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NOTICE OF ALLOWANCE AND FEE(S) DUE

HARRITY & HARRITY, LLP 11350 Random Hills Road SUITE 600 FAIRFAX, VA 22030 EXAMINER
PYO, MONICA M

ART UNIT PAPER NUMBER
2161

DATE MAILED: 03/31/2011

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/668,721	09/22/2003	Paul Haahr	0026-0151	2439

TITLE OF INVENTION: SYSTEM AND METHOD FOR PROVIDING SEARCH QUERY REFINEMENTS

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	\$1510	\$300	\$0	\$1810	06/30/2011

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN <u>THREE MONTHS</u> FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. <u>THIS STATUTORY PERIOD CANNOT BE EXTENDED.</u> SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is the same, pay the TOTAL FEE(S) DUE shown above

B. If the status above is to be removed, check box 5b on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above, or

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and 1/2 the ISSUE FEE shown above.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

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Complete and send this form, together with applicable fee(s), to: Mail Mail Stop ISSUE FEE

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HARRITY & 11350 Random SUITE 600 FAIRFAX, VA		ha I Si	ve its own certificat Ce hereby certify that the stees Postal Service	e of mailing or trai rtificate of Mailin his Fee(s) Transmi with sufficient pos L Stop, ISSUE, FE	nsmission. g or Transm ttal is being of tage for first EE address a	ission deposited with the United class mail in an envelope	
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APPLICATION NO.	FILING DATE		FIRST NAMED INVENTO	DR .	ATTORNEY DOO	CKET NO.	CONFIRMATION NO.
10/668,721	09/22/2003	•	Paul Haahr		0026-01:	<u> </u>	2439
TITLE OF INVENTION	N: SYSTEM AND METF	IOD FOR PROVIDING S	SEARCH QUERY REFI	NEMENIS			
APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DU	E PREV. PAID ISSU	E FEE TOTAL	FEE(S) DUE	DATE DUE
nonprovisional	NO	\$1510	\$300	\$0	\$	1810	06/30/2011
EXAM	MINER	ART UNIT	CLASS-SUBCLASS	CLASS			
PYO, MO	ONICA M	2161	707-003000				
"Fee Address" inc PTO/SB/47; Rev 03- Number is required. 3. ASSIGNEE NAME A PLEASE NOTE: Un	AND RESIDENCE DATA	"Indication form ed. Use of a Customer A TO BE PRINTED ON afficed below, no assignee	data will appear on the	gle firm (having as r agent) and the nan torneys or agents. If be printed. Type) patent. If an assign	a member a 2_nes of up to no name is 3_	elow, the doc	cument has been filed for
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4a. The following fee(s) are submitted: ☐ Issue Fee ☐ Publication Fee (No small entity discount permitted) ☐ Advance Order - # of Copies			4b. Payment of Fee(s): (Please first reapply any previously paid issue fee shown above) ☐ A check is enclosed. ☐ Payment by credit card. Form PTO-2038 is attached. ☐ The Director is hereby authorized to charge the required fee(s), any deficiency, or credit any overpayment, to Deposit Account Number (enclose an extra copy of this form).				
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· ·	ns SMALL ENTITY state		b. Applicant is no le				197 1 7
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a. Applicant claim	nd Publication Fee (if req records of the United Sta	ites Patent and Trademark	Office.				
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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/668,721	09/22/2003	Paul Haahr	0026-0151 2439	
44989 75	90 03/31/2011		EXAM	INER
HARRITY & HARRITY, LLP			PYO, MONICA M	
11350 Random Hil SUITE 600	Is Road		ART UNIT	PAPER NUMBER
FAIRFAX, VA 220	030		2161	

DATE MAILED: 03/31/2011

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)

(application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 180 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 180 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (http://pair.uspto.gov).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

Privacy Act Statement

The Privacy Act of 1974 (P.L. 93-579) requires that you be given certain information in connection with your submission of the attached form related to a patent application or patent. Accordingly, pursuant to the requirements of the Act, please be advised that: (1) the general authority for the collection of this information is 35 U.S.C. 2(b)(2); (2) furnishing of the information solicited is voluntary; and (3) the principal purpose for which the information is used by the U.S. Patent and Trademark Office is to process and/or examine your submission related to a patent application or patent. If you do not furnish the requested information, the U.S. Patent and Trademark Office may not be able to process and/or examine your submission, which may result in termination of proceedings or abandonment of the application or expiration of the patent.

The information provided by you in this form will be subject to the following routine uses:

- 1. The information on this form will be treated confidentially to the extent allowed under the Freedom of Information Act (5 U.S.C. 552) and the Privacy Act (5 U.S.C 552a). Records from this system of records may be disclosed to the Department of Justice to determine whether disclosure of these records is required by the Freedom of Information Act.
- 2. A record from this system of records may be disclosed, as a routine use, in the course of presenting evidence to a court, magistrate, or administrative tribunal, including disclosures to opposing counsel in the course of settlement negotiations.
- 3. A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.
- 4. A record in this system of records may be disclosed, as a routine use, to a contractor of the Agency having need for the information in order to perform a contract. Recipients of information shall be required to comply with the requirements of the Privacy Act of 1974, as amended, pursuant to 5 U.S.C. 552a(m).
- 5. A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent Cooperation Treaty.
- 6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).
- 7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (i.e., GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.
- 8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspection or an issued patent.
- 9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

	Application No.	Applicant(s)	
	10/668,721	HAAHR ET AL.	
Notice of Allowability	Examiner	Art Unit	
	MONICA M. PYO	2161	
The MAILING DATE of this communication appe All claims being allowable, PROSECUTION ON THE MERITS IS herewith (or previously mailed), a Notice of Allowance (PTOL-85) NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RI of the Office or upon petition by the applicant. See 37 CFR 1.313	(OR REMAINS) CLOSED or other appropriate comn GHTS. This application is and MPEP 1308.	in this application. If not included nunication will be mailed in due cours	se. THIS
1. This communication is responsive to the supplemental ame	<u>endment filed on 3/8/2011</u> .		
2. X The allowed claim(s) is/are <u>79,81-96,98-115,118-119 & 12</u>	<u>3-126</u> .		
 3. Acknowledgment is made of a claim for foreign priority un a) All b) Some* c) None of the: 1. Certified copies of the priority documents have 2. Certified copies of the priority documents have 3. Copies of the certified copies of the priority documents have International Bureau (PCT Rule 17.2(a)). 	been received. been received in Applicat	on No	from the
* Certified copies not received:			
Applicant has THREE MONTHS FROM THE "MAILING DATE" on noted below. Failure to timely comply will result in ABANDONM THIS THREE-MONTH PERIOD IS NOT EXTENDABLE. 4. A SUBSTITUTE OATH OR DECLARATION must be submi	ENT of this application.		
INFORMAL PATENT APPLICATION (PTO-152) which give	es reason(s) why the oath	or declaration is deficient.	
5. CORRECTED DRAWINGS (as "replacement sheets") mus	t be submitted.		
(a) Including changes required by the Notice of Draftspers	-	ew (PTO-948) attached	
1) hereto or 2) to Paper No./Mail Date			
(b) ☐ including changes required by the attached Examiner's Paper No./Mail Date			
Identifying indicia such as the application number (see 37 CFR 1. each sheet. Replacement sheet(s) should be labeled as such in the			к) от
 DEPOSIT OF and/or INFORMATION about the deposit attached Examiner's comment regarding REQUIREMENT I 			the
Attachment(s)	- -		
1. Notice of References Cited (PTO-892)		nformal Patent Application	
2. Notice of Draftperson's Patent Drawing Review (PTO-948)	Paper No	Summary (PTO-413), ./Mail Date	
 Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date 	7. 🛚 Examiner'	s Amendment/Comment	
4. Examiner's Comment Regarding Requirement for Deposit of Biological Material	8. 🛚 Examiner'	s Statement of Reasons for Allowand	ce
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	/Apu M Mofiz/ Supervisory P	atent Examiner, Art Unit 2161	
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DETAILED ACTION

1. Claims 79, 81-96, 98-115, 118-119, and 123-126 are currently pending in this Office Action.

EXAMINER'S AMENDMENT

- 2. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.
- 3. The supplemental amendment filed on 3/8/2011 is non-compliant because an incorrect status identifier was provided for claim 115. In view of MPEP 714(e), the application has been amended as follows for the purpose of correcting the status for claim 115:

IN THE CLAIMS:

- In claim 115, line 1, "(currently amended)" is changed to --(previously presented)--.

Allowable Subject Matter

- 4. Claims 79, 81-96, 98-115, 118-119, and 123-126 are allowed.
- 5. The following is an examiner's statement of reasons for allowance:

Regarding claims 79 and 81-93, the prior art fails to disclose or make obvious a method, performed by one or more server devices comprising, in addition to the other recited features of the claim, the steps of storing search query-search document associations, each search query-search document association representing a one-to-one pairing of an issued search query and a

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search document retrieved based on the issued search query; receiving a search query; identifying a set of search result documents using the received search query; forming, by one or more processors of the one or more server devices, a plurality of clusters of search documents, of the stored search query-search document associations, that match the identified set of search result documents; selecting at least one of the plurality of clusters; and formulating a search query refinement suggested based on an issued search query of a search query-search document association associated with a search document of the selected at least one of the plurality of clusters in the manner recited in claim 79.

Regarding claims 94 and 123-124, the prior art fails to disclose or make obvious a system comprising, in addition to the other recited features of the claim, means for storing search query-search document association in a memory, each search query-search document association representing a one-to-one pairing of a stored search query and a search document retrieved based on the stored search query; means for receiving a search query; means for identifying a set of search result documents using the received search query; means for forming a plurality of clusters of search documents, of the search query-search document associations, that are associated with the identified set of search result documents; means for selecting at least one of the plurality of clusters; and means for forming a refinement suggestion based on a stored search query associated with a search document of the selected at least one of the plurality of clusters in the manner recited in claim 94.

Regarding claims 95 and 118-119, the prior art fails to disclose or make obvious a computer-readable memory device to store instructions executable by at least one processor to cause the at least one processor to, in addition to other recited features of the claim, store search

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query-search document association, each search query-search document association representing a one-to-one pairing of an issued search query and a search document retrieved based on the issued search query; receive a search query; identify a set of search result documents using the received search query; form a plurality of clusters of search documents, of the stored search query-search document associations, that are associated with the identified set of search result documents; select at least one of the plurality of clusters; and formulate a search query refinement suggestion based on an issued search query associated with a search document of the selected at least one of the plurality of clusters in the manner recited in claim 95.

Regarding claims 96 and 98-110, the prior art fails to disclose or make obvious a method comprising, in addition to other recited features of the claim, the steps of storing, in a memory of the one or more server device, a plurality of query-document associations, each query-document association including a one-to-one pairing of an issued search query and a stored search document that was retrieved based on the issued search query; receiving a search query; identifying a set of search result documents using the received search query; identifying search result documents that match stored search documents; forming a plurality of clusters of the search documents, of the stored plurality of query-document associations, that match the search result documents; selecting at least one of the plurality of clusters, identifying for a stored search document; formulating a search query refinement suggestion for the received search query based on an issued search query of the identified query-document association in the manner recited in claim 96.

Regarding claims 111 and 125-126, the prior art fails to disclose or make obvious a system comprising, in addition to other recited features of the claim, means for storing a plurality

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of query-document associations, each query-document association including a one-to-one pairing of a search query and a search document retrieved based on the search query; the recited receiving means; means for identifying a set of search result documents using the received search query; means for identifying search result documents in the identified set of search result documents that match one or more of the stored search documents; means for forming a plurality of clusters based on the stored search documents that match search result documents in the identified set of search result documents; means for selecting at least of the plurality of clusters; means for identifying a search document of the selected at least one of the plurality of clusters, a search query of a query-document association of the plurality of query-document associations that corresponds to the identified search result document; and means for formulating a search query refinement suggestion for the received search query based on the identified search query in the manner recited in claim 111.

Regarding claims 112-115, the prior art fails to disclose or make obvious a method, performed by one or more server devices, comprising, in addition to other recited features of the claim, the steps of creating a query source reference, including identifying associations between issued search queries and retrieved search documents in a one-to-one relation, and assigning a weight to each of the associations; receiving a search query; forming a plurality of clusters based on the query source reference; selecting at least one of the plurality of clusters; and formulating a refinement suggestion for the received search query using the at least one of the plurality of clusters in the manner recited in claim 112.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue

fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to MONICA M. PYO whose telephone number is (571)272-8192. The examiner can normally be reached on Mon- Fri 8:00 - 3:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Apu Mofiz can be reached on 571-272-4080. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Monica M Pyo Examiner Art Unit 2161 Application/Control Number: 10/668,721 Page 7

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/Apu M Mofiz/ Supervisory Patent Examiner, Art Unit 2161